

WHAT IS CLAIMED IS:

1. An Internet telephone apparatus comprising:
a key pad configured to input an extension number of a destination telephone apparatus;
a memory configured to store a network address of a network to which the Internet telephone apparatus is connected;
a controller configured to set the extension number as a host address, to generate an IP address based on a combination of the network address stored in the memory and the host address, and to access the destination telephone apparatus over the Internet based on the IP address.
2. An Internet telephone apparatus comprising:
a key pad configured to input an extension number of a destination telephone apparatus;
a memory configured to store the first octet and the second octet of an IP address of a network to which the Internet telephone apparatus is connected;
a controller configured to set a part of the extension number as the third octet of the IP address, to set another part of the extension number as the fourth octet of the IP address, to generate an IP address based on a combination of the first octet and the second octet of the IP address stored in the memory together with the set third octet and the set fourth octet of the IP address, and to access the destination telephone apparatus over the Internet based on the IP address.
3. The Internet telephone apparatus according claim 2, wherein the part of the extension number set as the third octet of the IP address is the first digit of the extension number, and the another part of the extension number set as the fourth octet of the IP address is the second digit to the last digit of the extension number.
4. An Internet telephone apparatus comprising:
a key pad configured to input an extension number of a call destination, a plurality of telephone apparatuses being associated with the call destination;

a memory configured to store a network address of a network to which the Internet telephone apparatus is connected;

a controller configured to determine whether an input extension number is a predefined number, to replace the input extension number with a predetermined number when the extension number is the predefined number, to set the predetermined number as a first host address, to generate a first IP address based on a combination of the network address stored in the memory and the first host address, and to access a telephone apparatus of the call destination over the Internet based on the first IP address, the telephone apparatus of the call destination being associated with the input extension number; and

the controller, when the telephone apparatus of the call destination is unavailable, increments the predetermined number, sets the incremented number as a second host address, generates a second IP address based on a combination of the network address stored in the memory and the second host address, and accesses another telephone apparatus of the call destination over the Internet based on the second IP address without a user intervention at the Internet telephone apparatus.

5. The Internet telephone apparatus according to claim 4, wherein the controller transmits a confirmation signal to the call destination for confirming that a telephone apparatus corresponding to one of the first IP address and the second IP address exists, and accesses the telephone apparatus based on one of the first IP address and the second IP address when a response to the confirmation signal is received.

6. The Internet telephone apparatus according to claim 5, wherein the confirmation signal is an ICMP ping signal.

7. An Internet telephone apparatus comprising:

a key configured to input an extension number of a call destination, a plurality of telephone apparatuses being associated with the call destination;

a memory configured to store a network address of a network to which the Internet telephone apparatus is connected;

a controller configured to separate an input extension number into a first part and a second part, to determine whether the second part of the extension number is a predefined number, to replace the second part with a predetermined number when the second part number is the predefined number, to generate a first IP address based on a combination of the network address stored in the memory, the first part of the extension number, and the predetermined number, and to access a telephone apparatus of the call destination over the Internet based on the first IP address; the telephone apparatus of the call destination being associated with the input extension number; and

the controller, when the telephone apparatus of the call destination is unavailable, increments the predetermined number, generates a second IP address based on a combination of the network address stored in the memory, the first part of the extension number, and the incremented number, and accesses another telephone apparatus of the call destination over the Internet based on the second IP address without user intervention at the Internet telephone apparatus.

8. The Internet telephone apparatus according claim 7, wherein the first part of the extension number is the first digit of the extension number, and the second part of the extension number is the second digit to the last digit of the extension number.

9. The Internet telephone apparatus according to claim 7, wherein the controller transmits a confirmation signal to the call destination for confirming that a telephone apparatus corresponding to one of the first IP address and the second IP address exists, and accesses the telephone apparatus based on one of the first IP address and the second IP address when a response to the confirmation signal is received.

10. The Internet telephone apparatus according to claim 9, wherein the confirmation signal is an ICMP ping signal.

11. A method of communicating over the Internet utilizing an Internet telephone apparatus connected to a network in which the common network address of an IP address is utilized for a plurality of Internet telephone apparatuses, a memory storing the common network address, an extension number of each telephone apparatus in the network corresponding to a host address of an IP address, the communicating comprising:

inputting an extension number;

setting an extension number as a host address of the IP address when the extension number is input;

generating an IP address based on a combination of the network address stored in the memory and the set host address;

accessing a destination telephone apparatus over the Internet based on the IP address.

12. A method of communicating utilizing over the Internet utilizing an Internet telephone apparatus connected to a network, in which a first octet and a second octet of an IP address is commonly utilized for a plurality of Internet telephone apparatuses, a memory storing the first octet and the second octet of the IP address, a part of an extension number of each telephone apparatus on the network corresponding to a third octet of the IP address and another part of the extension number of the telephone apparatus corresponding to a fourth octet of the IP address, the communicating method comprising:

inputting an extension number;

setting a part of the extension number as the third octet of the IP address and another part of the extension number as the fourth octet of the IP address when the extension number is input;

generating an IP address based on a combination of the first octet and the second octet of the IP address stored in the memory together with the set third octet and the set fourth octet of the IP address;

accessing the destination telephone apparatus over the Internet based on the IP address.